2013 Watershed Assistance Grants PROPOSAL FORM

1. PROJECT TITLE

Lake Winnipesaukee Shannon Brook Watershed Management Plan
Phases 1 and 2: Identifying Phosphorus Sources and Implementing BMP-based Solutions

2. PROJECT LOCATION

A. Town(s): **Moultonborough, NH**
Does project involve other states? **Yes** ☐ **No** ☒

B. Affected Waterbody: **Lake Winnipesaukee's Moultonborough Bay Inlet**
12-digit hydrologic unit code (HUC): **010700020103**

C. PROJECT LOCATION MAP: **ATTACHED**

3. GRANT CATEGORY

Please check applicable water quality category:

a. High Quality Waters ☐

b. Impaired Waters ☒

Designated uses that are impaired and the specific causes of impairments as identified on the *2010 305(b)/ 303(d) Surface Water Quality Assessment:*

Moultonborough Bay Inlet comprises the northernmost feature of Lake Winnipesaukee (HUC12: 010700020103) with a watershed that extends north through Moultonborough up into Sandwich. Moultonborough Bay Inlet shares the Lake Winnipesaukee Assessment Unit of NHLAK70002010110-02-19 and also the oligotrophic classification for all of Lake Winnipesaukee. The Inlet receives runoff from the 31,556 acre watershed including the outlet waters from eight (8) ponds, five (5) of which are currently on the 2010 303(d) list for failure to support aquatic life (see attached water quality report card). In addition the draft 2012 303(d) inventory of impaired waters lists Lake Winnipesaukee as impaired for primary contact recreation due to cyanobacteria.

Since cyanobacteria require phosphorus as a nutrient, reducing levels of phosphorus in Lake Winnipesaukee is important to controlling or mitigating cyanobacteria blooms. Moultonborough Inlet itself demonstrates water quality more representative of a mesotrophic lake.

Water quality data from 2010 through 2012 for sampling stations in Moultonborough Bay Inlet is shown in the table below. The concentration for each parameter represents the mean value for the sampling season.

Sampling Station	2010		2011		2012	
	Chl a (ug/L)	TP (ug/L)	Chl a (ug/L)	TP (ug/L)	Chl a (ug/L)	TP (ug/L)
Suissevale	2.8	9.6	2.5	11.1	2.8	8.5
States Landing		14.4		10.1	3.4	12.2
Little Ganzy		9.6		11.1		
Black Point	2.2	10.0	2.0	9.9	2.7	7.7
Green's Basin	5.8	14.7	4.9	11.2	3.4	10.9
Lee's Mills		12.6			4.1	15.0

Applicable project category:

a. Watershed-based Plan Preparation ☒
b. Watershed-based Plan Implementation ☒

Federal MS4 permit applicability:

a. Project area is within an EPA-regulated MS4 area ☐
b. Project area is outside of EPA-regulated MS4 areas ☒

4. APPLICANT INFORMATION

A. Organization Name: Lakes Region Planning Commission

B. Federal Funding Accountability and Transparency Act (FFATA) Information

Data Universal Numbering System (DUNS) Number: 780926540

☒ The Executive Compensation Data requirements of the FFATA do not apply to the Applicant organization.

☐ The Executive Compensation Data requirements of the FFATA apply to the Applicant organization and the Applicant agrees to provide information to DES as required by the FFATA.

C. Project Manager

Project manager's name:	Dari Sassan	
Title:	Regional Planner	
Affiliation:	Lakes Region Planning Commission	
Street address:	103 Main Street, Suite #3	
City, State, ZIP:	Meredith, NH 03253	
Day phone: (603)279-8171	Fax: (603)279-0200	Email: dsassan@lakesrpc.org

D. Legal Contact (Officer legally authorized to sign agreements)

Legal Contact's name:	Kimon Koulet	
Title:	Executive Director	
Affiliation:	Lakes Region Planning Commission	
Street address:	103 Main Street	
City, State, ZIP:	Meredith, NH 03253	
Day phone: (603)279-8171	Fax: (603)279-0200	Email: lrpc@lakesrpc.org

Signature of Legal Contact: _____ Date: _____

5. PROJECT SUMMARY

Anticipated Start Date: June 1, 2013 Project End Date: December 31, 2015

Types of nonpoint sources and water quality problems or threats to be addressed by the project:

This proposal, the Lake Winnipesaukee Shannon Brook Subwatershed Management Plan Development and Implementation project, is part of a long-term strategy to create a public, on-line watershed management plan (WMP) for the entire Lake Winnipesaukee watershed that addresses nutrient loading. In 2010, the "Plan 1: Meredith, Paugus and Saunders Bay" WMP was released as a first step in this process.

Moultonborough Bay Inlet, the largest subwatershed of Lake Winnipesaukee, exhibits the Lake's poorest water quality. Potential threats to the water quality include development pressure, recreation, septic systems, erosion, and land use practices. The goal of this project is to protect the water quality of the watershed from these threats by developing a WMP which will establish in-lake and watershed load reduction goals for phosphorus, the key limiting nutrient for this subwatershed and Lake Winnipesaukee. The planning process will focus on local involvement and result in recommendations and implementation strategies for public education, adoption of best management practices, site restoration projects, and reduction of pollution source materials. An added implementation component will ensure that phosphorus reductions are achieved as a direct result of this project.

Shannon Brook Subwatershed is characterized by two large developments of over 400 homes each located on the shoreline of Moultonborough Bay Inlet. The two developments, Suissevale and Balmoral, are comprised of a mixture of seasonal and year round use with a very large rental component in the Suissevale development. All properties within each subdivision rely on onsite subsurface wastewater disposal systems and the impact of aging or failing septic systems on the Inlet is not yet known. This plan will conduct a septic system inventory to assess the extent of water quality impacts due to waste water disposal. LRPC will utilize the same methodology utilized by the Town of Meredith to conduct its septic system inventory in the Waukewan Watershed. The methodology involves researching state Subsurface Bureau records as well as local records to assign a risk value to each septic system in the densely-developed shorefront portion of the study area.

Current water quality impairments for Lake Winnipesaukee include cyanobacteria and invasive species. Water quality data for Moultonborough Bay Inlet show concentrations of total phosphorus exceeding the State nutrient standard of 8 ug/L TP for an oligotrophic water body. In addition to an impact analysis from septic systems, the WMP will address sedimentation from the erosion of stream banks, the shorelands, and road shoulders as well as unconsolidated sand from winter road maintenance, gravel roads and poorly functioning stormwater conveyance and catchment systems. Pollutants associated with stormwater runoff (phosphorus, metals, total suspended solids) will be targeted for mitigation actions that will result in reduction of pollutant loading within the Shannon Brook subwatershed and ultimately to Moultonborough Bay Inlet.

Success of this proposal will be achieved with the finished WMP and the completion of prescribed BMP installations, both of which will provide the communities with the tools and examples necessary to guide future development and redevelopment in the watershed toward the least negative impact on the water quality of this subwatershed and Lake Winnipesaukee.

Brief Project Description:

Pollutants within Moultonborough Bay—which have led to the previously discussed cyanobacteria and exotics impairments—have been anecdotally correlated with stormwater runoff and aging or failing septic systems. With that known, LRPC, Lake Winnipesaukee Watershed Association (LWWA) and representatives from Moultonborough agreed that the highest and best use of limited Section 319 funding would be to focus on the sub-catchment encompassing the highly developed Balmoral/Suissevale/States Landing area, rather than the entire Moultonborough Bay Inlet watershed, which is otherwise characterized by relatively low density development (see attached map of project area). LRPC proposes to review existing resource materials, data, and reports and conduct detailed watershed investigations to identify pollution sources that need to be controlled. LRPC and other project partners will then generate a prioritized list of detailed remediation actions, with associated economic costs and water quality benefits. Furthermore, LRPC proposes to incorporate an implementation component to accompany the study process. Implementation elements of the project will target the States Landing recreation area as well as individual private lots and will focus on water quality enhancement through low cost Best Management Practices to minimize erosion, sedimentation and discharge of polluted runoff into the Bay.

6. DESIRED ENVIRONMENTAL OUTCOME

Expected environmental outcome:

This project seeks to reduce the phosphorus concentrations in Moultonborough Bay Inlet to a level approaching the NH State Nutrient criteria for an oligotrophic waterbody; i.e. 8 ug/L. It is not certain that this is possible, as results from work conducted by U.S. EPA in the 1970's indicate that Moultonborough Bay Inlet may naturally be a mesotrophic waterbody, and historical water quality data support that trophic status. However, the nutrient modeling to be performed as part of this project would provide greater insight as to whether Moultonborough Bay Inlet should be categorized as its own Assessment Unit, with potentially a different trophic status than the rest of Lake Winnipesaukee. Determining proper trophic classification and corresponding applicable nutrient criteria would greatly help lake resource managers and the communities set in-lake water quality and watershed reduction goals; thereby resulting in identification and prioritization of best management practices to achieve those goals.

7. STAKEHOLDER COORDINATION, ROLES, AND RESPONSIBILITIES

Participation and commitments expected from other agencies, organizations and municipalities:

The LRPC is committed to effective and responsible contract management and successful outcomes. Our team includes experienced project and financial managers who routinely oversee federal and state grants and compile financial and work program reports. Dari Sassan, LRPC Regional Planner, specializes in environmental and land use planning and will be project manager. He has five years of planning related experience. Kimon Koulet, Executive Director, has over 30 years of experience managing similar contracts and grants, and will oversee the program. Both have similar roles in current NH DES funded efforts. Michelle Therrien, GIS Analyst, has extensive experience with GIS, both at the LRPC and with the town of Meredith. Our stakeholders and partners are essential to successful completion of the project.

LRPC has worked closely with Pat Tarpey, Executive Director of the Lake Winnipesaukee Watershed Association, on all watershed planning efforts over the past five years. Pat brings an enormous amount of technical expertise and local knowledge to the effort. Both Pat and Dari will carry out the planning related activities, and coordinate closely with local officials in Moultonborough on the planning and with the BMP implementation, which will involve procurement of a consultant for design and installation services. Team roles are broken down in the Objectives and Tasks section of this proposal. Consultant work is focused specifically on implementation elements of the project and publication of the WMP to the

WinnipesaukeeGateway website. After working collaboratively with the community to define a scope of implementation services, LRPC will facilitate a procurement process, involving community representation, and will contract with the selected consultant(s).

Over the past year, he Town of Moultonborough has increased its role in planning for the protection of Moultonborough Bay. While a demonstrated financial commitment to lake protection has long been evident through its Milfoil eradication program, Moultonborough has now demonstrated additional commitment to long term planning through separate financial commitments from the Select Board and Conservation Commission toward this project.

The LRPC has recently increased staff capacity to accommodate the diversity of its work program. The LRPC is now in good position to undertake the additional watershed planning and implementation tasks envisioned in this proposal. Our project manager will also have a greater percentage of time allocated to this and other key watershed planning activities over the next three years. Moreover, the LRPC intends to subcontract several key tasks to an environmental consulting firm with proven expertise to provide substantive outcomes within budget and timelines.

The following table outlines LRPC's current and upcoming water resources projects:

Project	Status
604(b) Pemigewasset River Corridor Management Plan	Managed by Dave Jeffers, LRPC Regional Planner. The Pemi corridor project will be complete prior to the beginning of the Shannon Brook project
604(b) Meredith Paugus Saunders Bay Stormwater Regulation	Tasks 1-6 have been completed and the LRPC business office is preparing an invoice for Tasks 1-5, which represents over 50% of the funding.
319 Center Harbor Bay	LRPC and LWWA have completed land use mapping and initial STEPL assessments. LRPC will maintain compliance with the approved project SSPP by estimating needed reductions and identifying current pollution sources over the next quarter.
604(b) Waukewan Stormwater BMP Implementation	Pending G&C approval. LRPC has dedicated additional project management resources to accommodate an expanding water resources protection program.

8. WATERSHED BASED PLAN

Required elements of a watershed based plan:

a) Identify pollution causes and sources:

Project partners (LRPC and LWWA) will draw upon existing resource materials, and data reports, including 305(b)/303(d) listings, UNH-LLMP annual reports, and NHDES Trophic Lake Survey Reports to supplement watershed investigations designed to identify those pollution sources that need to be controlled in the watershed. Once sources have been identified, they will be prioritized for remediation based upon severity of impact to surface waters within the watershed, and the cost effectiveness of pollutant reductions. It is expected that the consulting firm and project partners will generate a list of pollution causes and sources that includes, but is not limited to, the following:

1. Number of non-functioning or improperly sized catch basins

2. Number and location of existing stormwater BMPs in watershed that are not being maintained and/or are not functioning as designed
3. Linear feet of stream banks and stormwater swales with active erosion
4. Number of perched culverts and/or barriers causing severe hydromodification
5. Number of acres and/or linear feet of poor quality or missing riparian buffer
6. Volume of sediment deposited in stream channels, stormwater swales, and catch basins
7. Number of subsurface sanitary disposal systems failing or in need of remediation
8. Impervious cover and effective impervious cover within watershed and percentages per subwatershed
9. Volume of sand and salt applied to roads on an annual basis within watershed
10. Number of commercial and residential properties with commercial landscaping contracts that utilize phosphorus-based fertilizers

b) Estimate pollution reductions needed:

Based upon the nonpoint source pollutant list generated under section a, and the outcome(s) of running various watershed models (STEPL, AVGWLF, etc.), pollutant loading estimates will be generated for the Moultonborough Bay Inlet watershed. The watershed advisory committee will establish a water quality goal for phosphorous based on the nutrient budget determined from the land use modeling. The water quality goal will help determine the pollutant reductions needed to meet restoration goals throughout the watershed. This will help create a phosphorous budget for the watershed, which will assist in the selection process of pollutant control measures and best management practices for installation/implementation throughout the watershed.

c) Actions needed to reduce pollution:

LRPC and partners will develop a prioritized list of pollution sources in the watershed, the pollutant loading contributed to receiving waters from each source, as well as pollution reduction estimates. Maps will be generated at the subwatershed and reach/site specific scale to illustrate those areas identified for restoration actions.

Potential pollutant reduction measures will be identified in consideration of the pollutant reduction efficiencies for each technique. Structural and some non-structural best management practice measures will be identified through this process. The predicted success rate of each measure along with associated costs will also be developed. In coordination with local stakeholders, the various management alternatives will be evaluated and ranked to develop the "best fit" and/or best "bang for the buck" scenario for each priority area in the watershed.

d) Costs and authority:

The completed watershed restoration plan will have technical and financial estimates for the required engineering, permitting, construction and maintenance actions identified in the plan.

As part of (c) above and (f) below, a schedule of actions will be developed that will include estimates of the technical and financial resources that will be necessary for implementation. Potential sources of technical and financial (direct funding and in-kind match) assistance to the communities are:

Lakes Region Planning Commission

Belknap and Carroll County Conservation Districts

USDA Natural Resource Conservation Service – financial opportunities through the Farm Bill Programs

Lake Winnipesaukee Watershed Association – will lead the outreach and education efforts

UNH Center for Freshwater Biology

UNH Cooperative Extension – assistance with outreach and education

Expansion of NH LAKES Lake Conservation Corps to provide assistance with landowner buffer improvement projects.

NHDES Watershed Assistance Section – Section 319 funding and technical assistance

NHDES Wastewater Engineering Bureau – State Revolving Fund

North Country Resource Conservation and Development Area Council

Center for Watershed Protection – technical assistance and education/outreach

e) *Outreach and education:*

Anticipated education and outreach efforts lead by LRPC and LWWA are as follows:

- Creation of a Moultonborough Inlet Watershed Advisory Group, Committee, and/or Stakeholder Association that will be involved with the development and implementation of this restoration plan.
- The expansion of "Wi–CAN", the Winnipesaukee Conservation Action Network, comprised of representatives from each community as well as Island assoc., camps, homeowner assoc., businesses, etc. that will be engaged in education and outreach activities in support of the Lake Winnipesaukee Watershed Management Plan, and will assist communities with implementation actions, and act as stewards of the watershed.
- Public Education Program – vegetated buffer workshops, links to Phosphorus runoff reduction information, voluntary "Don't P in the Lake" efforts
- Development of an interactive tool on the Lake Winnipesaukee Watershed Management Plan (LWWMP) website such as the New Hampshire Residential Loading Model (NHDES) where homeowners, as well as commercial, and municipal properties can actively participate in phosphorus reduction initiatives.
- Participatory "Measure your P" (Residential Loading Model)– spot P sampling on individual properties (at owner's expense)
- "Adopt Winni" – promoting stewardship, best management practices, and water quality monitoring in the subwatersheds
- LWWA collaboration with land trusts on conservation easements, stewardship, and land purchases
- Integration of the Moultonborough Bay Inlet Restoration Plan into the LWWMP on the **WinnipesaukeeGateway** website.

f) *Schedule:*

An implementation schedule will be developed that identifies actions, pollutants addressed, estimated load reductions, technical assistance or resources needed, costs, funding sources, and anticipated timetable. The Lakes Region Planning Commission will work with our project partners, municipalities, and watershed stakeholders to ensure that the schedule is realistic, achievable, and contains outcomes that are measurable.

g) *Milestones:*

- A Water quality monitoring component will be helpful to measure whether or not NPS management measures (structural and non-structural) are being implemented successfully throughout the watershed. This component should be an action or measure identified by the communities to implement if there is not already a monitoring program in place, and it needs to be specific to the pollutant issue(s) of concern; i.e. sediment or erosion issues should have turbidity measurements taken to document improvement
- For issues with milfoil, the weed watchers program would represent a monitoring component that can track milestones and present opportunities for adjustment to restoration plan action that may not be producing desired results
- Tributary and lake/pond monitoring for phosphorus, chlorophyll-a, and dissolved oxygen will track trends in surface water quality and provide the evidence necessary for the ultimate goal of restoring designated uses to all surface waters within the watershed

- Changes in local regulations, ordinances, or homeowner's association by-laws, design and construction standards, and maintenance practices that address nonpoint source issues
- Implementation of best management practices by community, i.e. number of feet of stream bank stabilized, length and width of vegetated buffers established on shoreline, number of catch basins retrofitted.
- Number of properties that have utilized the Residential Loading Model and/or implemented residential BMPs.

Interim milestones will be developed from the activities generated in the watershed restoration plan along with their proposed end dates. If, after reviewing these milestones, it appears that certain activities will not be completed and objectives unfulfilled, the project implementers will revise the plan and time-line, as needed.

h) *Success indicators and evaluation:*

- An active water quality monitoring program within the watershed will be a primary indicator for measuring reductions in pollutant loading on a watershed scale. Selection of sites, frequency of sampling, parameters measured, etc. will be based on identification of problem areas, land use, impairments, etc. identified during the development of the restoration plan (Phase I).
- An operations and maintenance plan/agreement needs to be in place so that structural best management practices receive ongoing maintenance to ensure proper functioning. This will be an essential tool for monitoring success that ensures that data entered into pollutant load reduction models is accurately portraying BMPs that are fully functioning.

- An annual BMP inspection and evaluation program within the watershed to ensure that historical BMPs and those installed as a result of the watershed restoration plan are functioning as intended and achieving the pollutant load reductions required.

- Increase in number of residential, commercial, and municipal properties that have had the Residential Loading Model (RLM) completed and then had the companion "*Homeowners' Guide to Stormwater Management*" applied to develop BMPs to reduce phosphorus runoff.

- Annual review of the restoration plan and the measurable milestones/success criteria by the community to determine if the actions implemented are succeeding; if monitoring data indicates efforts are not improving water quality, the strategies identified will be revisited

- An active volunteer directed "Wi–CAN" (Winnipesaukee Conservation Action Network) to share information and resources throughout the watershed.

- *Monitoring plan:*
  - UNH LLMP already has active monitoring sites in Moultonborough Bay Inlet. The "Adopt Winni" effort will be used to expand sites, obtain financial sponsors, and recruit additional volunteers.
  - The Moultonborough Milfoil Crisis Committee is a participant in the Weed Watchers Program and is actively monitoring the spread of milfoil and other invasive species.
  - As land use changes are implemented (reduction in impervious cover), and pollutant sources are identified, addressed, and measured, pollutant load reduction models will be updated to reflect these changes and outputs will reflect changed conditions relative to water quality of the inlet and of the tributaries and ponds within the watershed.
  - An annual BMP inspection and evaluation program within the watershed to ensure that historical BMPs and those installed as a result of the watershed restoration plan are functioning as intended and achieving the required pollutant load reductions.

9. PROJECT COST

A. Total Project Costs

Funding	Percentage	Amount
Federal EPA 319 Grant funds requested (≤60%)	56%	$63,865
Required non-federal match amount (≥40%)	44%	$51,200
Other funding source(s)		
Total project cost	100%	$115,065

B. Costs by Budget Category: ATTACHED (Spreadsheet A)

10. OBJECTIVES AND TASKS

Objectives, Deliverables and Tasks: ATTACHED (Spreadsheet B)

11. QUALITY ASSURANCE

1. Please check the applicable box:

☒ This project includes collection and analysis of environmental monitoring data.

☒ This project includes modeling or other analysis or manipulation of environmental data.

☐ This project does not include either of the above (skip to Section 11).

2. This project conforms to the *New Hampshire Section 319 Nonpoint Source Grant Program QAPP.*

☒ **Yes** (development of a Site Specific Project Plan (SSPP) is included as a task in this application.)

☐ **No** (development of an individual project QAPP is included as a task in this application.)

12. OPERATION AND MAINTENANCE

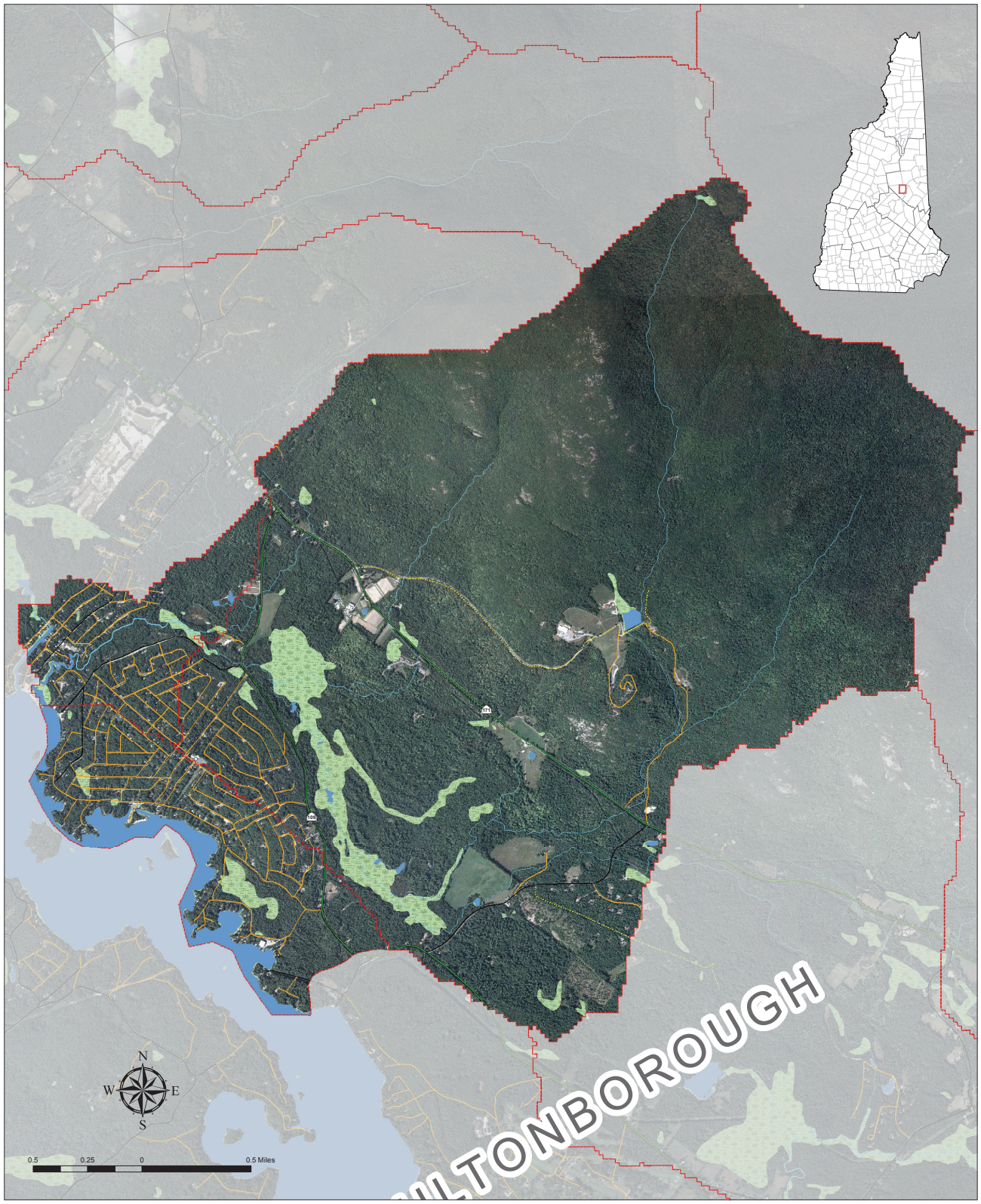
LRPC will draw upon the experiences of the Acton Wakefield Watershed Alliance and will modify the agreement form utilized in that region when developing agreements with landowners. LRPC will work with the Town of Moultonborough to allow for continued maintenance of BMPs.

13. PHASING CONSIDERATIONS

The watershed-based plan for the Moultonborough Bay-Shannon Brook subwatershed will include a schedule for implementation that takes into account the availability of local resources, grants, and the scale of measures proposed in the plan. Implementation of management measures will likely take place over several phases as funding is identified. Early phases will implement priority management measures to help achieve maximum load reductions.

In addition, this project only addresses one subwatershed within the entire Moultonborough Bay Inlet subwatershed. Successful completion of this project and successful future implementation of BMPs will help the project partners gain community support for expanded watershed planning projects in the remaining watershed.

Shannon Brook Watershed Study Area



Legend

- Sub-watershed Catchments
- NH Route
- State Maintained Road
- Local Road
- Private Road
- Non-Maintained Road
- Town Boundary
- Water Body

Stream Order

- 1
- 2
- 3
- 4
- 5
- Wetlands

Digital data layers used in this map were acquired through NH GRANIT, New Hampshire's Statewide GIS Clearinghouse.

NH GRANIT represents the efforts of contributing agencies to record information from cited source materials. Complex Systems Research Center (CSRC), under the contract to the NH Office of Energy and Planning (NHOEP), and in consultation with cooperating agencies, maintains a continuing program to identify and correct errors in these data. Neither NHOEP nor CSRC make any claim to the validity or reliability or to any implied uses of these data.

For more information regarding specific data standards and cited source materials, go to NH GRANIT website:

http://www.granit.unh.edu/aboutus/aboutgranit.html
http://www.granit.unh.edu/resourcelibrary/GRANITresources/standards/standards.html

For planning purposes only.

L R P C
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(603) 279-8171

A. Project Costs by Category (Section 9 of the application)

Budget Category						Requested Federal EPA 319 grant amount	Non-federal match amount	Total cost of category
1. Salary and Fringe:								
Include salaries and fringe benefits paid for work performed on the project. "Salary" should reflect the rate per hour, by position. "Fringe benefits" are employment benefits given in addition to one's wages or salary.								
Name	Title	Salary Hourly rate*	Approx. # of hours	Salary Charged to Project	Fringe			
Dari Sassan	Regional Planner	$ 55	333	$ 18,315		$ 18,315	$ 6,700	$ 25,015
Michelle Therrien	GIS Analyst	$ 55	58	$ 3,190		$ 3,190		$ 3,190
Professional Match		$ 50	70	$ 3,500			$ 3,500	$ 3,500
Community Match		$ 20	1675	$ 33,500			$ 33,500	$ 33,500
					Subtotals	$ 21,505	$ 43,700	$ 65,205
2. Indirect Cost of Salary: ***Includes direct labor and all indirect costs***								
Indicate the indirect costs. Typical indirect costs are associated with but not limited to office space, telephones, personnel administration, accounting, and room equipment rental and useage (i.e., the cost of doing business.								
								0
3. Supplies:								
Includes field and lab supplies; data processing materials; equimpent costing less than $1,000; clothing; books, paper, and other office supplies								
								0
4. Equipment:								
List any items of equipment costing more than $1,000 in total. Equipment costing less than $1,000 should be listed in supplies (#3).								
5. Travel and Training:								
Includes project related charges for travel and charges as the result of use of an auto. Vehicle costs should be shown as the number of miles multiplied by the mileage rate. Mileage rates cannot exceed the Standard Mileage Rate provided by the Internal Revenue Service.								
6. Contractual:								
Includes expenditures made to sub-grantees/sub-contractors, hired speakers, legal services, cost of engineering and design, etc. The rate of pay per hours, number of hours and type of service provided should be included. Any procured services not provided by the Grantee should be listed here.								
Subgrantees **(see Sheet C - Subgrantee Detail)**						42360	7500	49860
7. Construction:								
Costs (construction contracts, cost share agreements, etc.) associated with construction. Permit fees can be included.								
								0
8. Other (specify):								
Includes postage, printing, license fees, equipment maintenance and repair, computer software, non-staff insurance. Any item								
								0
					Total cost for all Categories	**$ 63,865**	**$ 51,200**	**$ 115,065**

B. Objectives, Deliverables, and Tasks (Section 10 of the Application)

Objective: Develop Site-Specific Project Plan

Measures of Success: An approved SSPP has been filed with DES

Deliverable: Approved SSPP

Task #	Task Description	Responsible Party	Proposed Dates	Federal EPA 319 Grant Funds	Matching Funds	Source of Matching Funds	EPA Mandated Element (a - i)
1		LRPC		$880			
method:	The SSPP will be drafted and submitted to DES for its approval using the NH DES QAPP as the reference document.						
			Subtotal	$880	$0		

Objective: Compile and Verify Existing Water Quality Data

Measures of Success: Compilation and evaluation of existing data

Deliverable: Completed assimilative capacity analysis

Task #	Task Description	Responsible Party	Proposed Dates	Federal EPA 319 Grant Funds	Matching Funds	Source of Matching Funds	EPA Mandated Element (a - i)
2		LWWA	Jul-13 - Aug-13	$540			b
method:	Obtain all monitoring data from UNH, PSU and DES, and municipality to be sure it has been entered into the Environmental Monitoring Database						
3		LWWA	Jul-13 - Aug-13	$900			b
method:	Evaluate existing water quality data in the MBI watershed						
4		LWWA	Jul-13 - Aug-13	$360			b
method:	Conduct the Assimilative Capacity Analysis						
			Subtotal	$1,800	$0		

Objective: Monitoring Component

Measures of Success: Completion of flow monitoring

Deliverable: Weighting of tributaries based upon flow

Task #	Task Description	Responsible Party	Proposed Dates	Federal EPA 319 Grant Funds	Matching Funds	Source of Matching Funds	EPA Mandated Element (a - i)
5		Moult. Con Com	Apr-14 - Oct-14	$0	$2,000	Mlt.ConCom/Community	a,b
method:	Conduct flow monitoring of major tributaries or inflows to MB Inlet						
6		Moult. Con Com	2013-2014	$0	$2,800	Mlt.ConCom/Community	a,b,i
method:	Water Quality Monitoring of MB Inlet						
			Subtotal	$0	$4,800		

Objective: Identify & Map Pollution Sources

Measures of Success: Completion of mapping and Septic Survey

Deliverable: Maps/GIS data, survey analysis, survey inventory

Task #	Task Description	Responsible Party	Proposed Dates	Federal EPA 319 Grant Funds	Matching Funds	Source of Matching Funds	EPA Mandated Element (a - i)
10		LRPC	Jun-13	$550			a
method:	Delineate and map subwatersheds in Moultonborough Bay Inlet						
11		LRPC	Jun-13 - Aug-13	$2,200			a
method:	Map land use and soils						
12		LRPC/LWWA	Apr-14 - Oct-14	$2,000	$2,000	Community	a,b,c
method:	Conduct on-the-ground watershed assessments to identify and map the following: - poorly functioning stormwater infrastructure (e.g., culverts, catch basins) - areas where land use practices are generating pollution (e.g., lawns, agriculture, golf courses, etc.) - areas of degraded or insufficient riparian buffers - areas of significant erosion - areas of milfoil infestation						
			13	$4,750	$2,000		

Objective: Conduct Septic System Survey and Inventory

Measures of Success: Ages, types and conditions of on-site sewage systems are catalogued

Deliverable: Inventory of ages, types and conditions of septic systems within the study area

Task #	Task Description	Responsible Party	Proposed Dates	Federal EPA 319 Grant Funds	Matching Funds	Source of Matching Funds	EPA Mandated Element (a - i)
13		LRPC/LWWA	Dec-13 - Mar-14	$800	$1,000	Community	a
method:	Work with partners and residents to refine inventory procedure						
14		LRPC/LWWA	Apr-14 - Oct-14	$2,840	$3,700	Mlt. ConCom/Planner	a
method:	Conduct inventory						
15		LRPC		$440			a,b,c
method:	Analyze results						
			Subtotal	$4,080	$4,700		

Objective: Calculate Current Pollution Inputs

Measures of Success: Completed calculation of current pollution inputs

Deliverable: Calculation of current pollution inputs

Task #	Task Description	Responsible Party	Proposed Dates	Federal EPA 319 Grant Funds	Matching Funds	Source of Matching Funds	EPA Mandated Element (a - i)

18		LWWA	Sep-13 - Nov-13	$2,240	$1,750	LRPC	b
method:	Using data compiled from step 2, model overall pollution loading (STEPL, AVGWLF, etc.)						
				Subtotal	$2,240	$1,750	

Objective: Establish Water Quality Goals and Metrics

Measures of Success: Establishment of water quality goals and metrics

Deliverable: Moultonborough Bay Inlet water quality goals and metrics

Task #	Task Description	Responsible Party	Proposed Dates	Federal EPA 319 Grant Funds	Matching Funds	Source of Matching Funds	EPA Mandated Element (a - i)
19		LWWA	Feb-14	$360			b
method:	Establish a threshold for phosphorus loading in the watershed using STEPL and predictive in lake P models. The ultimate outcome is to achieve phosphorus loading in the watershed that will not exceed phosphorus threshold established by DES.						
20		LWWA	Nov-13 - Jan-14	$360			b
method:	Calculate internal phosphorus loading						
21		LRPC	Feb-14 - Apr-14	$620	$2,000	Community	b
method:	Stakeholders will establish a water quality goal for phosphorus based on the nutrient budget determined from the land use modeling						
				Subtotal	$1,340	$2,000	

Objective: Develop Watershed Management Plan--**Determine Actions to Reduce Pollution**

Measures of Success: Identification of potential BMP & ILU applications throughout the watershed that would improve water quality

Deliverable: List of BMP and ILU recommendations

Task #	Task Description	Responsible Party	Proposed Dates	Federal EPA 319 Grant Funds	Matching Funds	Source of Matching Funds	EPA Mandated Element (a - i)
22		LRPC/LWWA	Apr-14 - Aug-14	$2,000	$2,000	Community	c
method:	Best management practices and Innovative Land Use (ILU) techniques will be evaluated along with regulations currently used by the municipalities. Findings and recommendations will be developed in cooperation with local municipal staff and MB Advisory Committee members.						
23		LRPC/LWWA	Apr-14 - Aug-14	$1,000	$500	Community	c
method:	Planning and application of agricultural and forestry best management practices will be targeted in areas of the sub-watershed identified as needing them.						
				Subtotal	$3,000	$2,500	

Objective: Develop Watershed Management Plan--**Identify, Map and Prioritize Potential Restoration Sites**

Measures of Success: Identification, mapping and prioritization of potential restoration sites.

Deliverable: List of potential restoration sites

Task #	Task Description	Responsible Party	Proposed Dates	Federal EPA 319 Grant Funds	Matching Funds	Source of Matching Funds	EPA Mandated Element (a - i)
24		LRPC	Sep-14 - Dec-14	$440			b,c
method:	Specific sites in need of restoration willl be mapped and prioritized based on results from step 13						
25		LWWA	Sep-14 - Dec-14	$1,790	$1,250	LRPC	b,c
method:	Derive pollution reduction estimates a number of ways to ensure the phosphorus threshold is maintained. These may include determining percent of impervious cover of the watershed, specific BMP performance standards, and running pollution reduction models						
			Subtotal	$2,230	$1,250		

Objective: Develop Watershed Management Plan--**Develop Implementation and Verification Plan**

Measures of Success: Development of implementation and verification plan

Deliverable: Implementation and verification plan

Task #	Task Description	Responsible Party	Proposed Dates	Federal EPA 319 Grant Funds	Matching Funds	Source of Matching Funds	EPA Mandated Element (a - i)
26		LRPC	Jan-15 - Mar-15	$440			d
method:	For each recommended idea or best management practice, an implementation strategy will be offered that identifies the entities, resources, and timetable to implement them.						
27		LRPC	Jan-15 - Mar-15	$440			d
method:	Identification of potential sources and types of funding for restoration and prevention of NPS pollution, as well as ongoing technical expertise to continue restoration and protection of the watershed will occur.						
28		LRPC	Jan-15 - Mar-15	$440	$500	Community	f
method:	A 10-year priority schedule of identified management measures will be included in the plan. The schedule will identify goals, objectives, activities, responsible entities, and target dates for each management measure.						
29		LRPC	Jan-15 - Mar-15	$440	$1,000	Community	g
method:	The municipalities, along with the project partners, and the Water Quality Advisory Committee will identify milestones, e.g. # feet of eroded streambank stabilized, the number of culverts retrofitted, number of stormdrains retrofitted, a LID demonstration site will be created by 2015, the number of vegetated buffer improvements, etc. The implementation plan for each strategy will also include near, mid and long range goals.						
30		LRPC	Jan-15 - Mar-15	$275	$500	Community	i
method:	Evaluate data to identify sites to continue water quality monitoring efforts. Establishing near-shore monitoring sites, along with continued LLMP monitoring, will help municipalities monitor trends in overall water quality such as transparency, chlorophyll-a, conductance, and phosphorus, as a result of implementing land use controls. Ongoing monitoring in the tributaries will also evaluate the performance of new BMPs and buffers.						
31		LRPC	Jan-15 - Mar-15	$440			h
method:	The plan will identify performance targets and will lead to actions that will result in a reduction in pollutant loadings						
			Subtotal	$2,475	$2,000		

Objective: Develop Watershed Management Plan--**Draft the Watershed Restoration Plan**

Measures of Success: Completion of a draft watershed restoration plan

Deliverable: Draft watershed restoration plan

Task #	Task Description	Responsible Party	Proposed Dates	Federal EPA 319 Grant Funds	Matching Funds	Source of Matching Funds	EPA Mandated Element (a - i)
32		LRPC	Jan-15 - Jul-15	$3,300			e
method:	Compile all research and analysis and draft a plan						
33		LRPC	Jul-15 -Sep-15	$1,320	$1,000	Community	e
method:	Seek review and incorporate edits/comments from stakeholders, general public and natural resource professionals						
34		Website Consultant	Oct-15 - Nov-15	$3,440			e
method:	Publish plan to Winnipesaukee Gateway website						
			Subtotal	$8,060	$1,000		

Objective: Implement BMP's at State's Beach Landing

Measures of Success:

Deliverable:

Task #	Task Description	Responsible Party	Proposed Dates	Federal EPA 319 Grant Funds	Matching Funds	Source of Matching Funds	EPA Mandated Element (a - i)
45		Consultant	May 14 - Sep-14	$1,500	$300	LRPC	e
method:	Research sedimentation issues and review past recommendations						
46		Consultant	May 14 - Sep-14	$6,000			e
method:	Design BMP installations						
47		Consultant	May 14 - Sep-14	$6,000	$7,500	Select Board/Community	e
method:	Implement BMPs						
48		Consultant	May 14 - Sep-14	$3,000	$300	LRPC	e
method:	Evaluate BMP Performance						
			Subtotal	$16,500	$8,100		

Objective: Implement site-level stormwater and erosion BMPs

Measures of Success:

Deliverable:

Task #	Task Description	Responsible Party	Proposed Dates	Federal EPA 319 Grant Funds	Matching Funds	Source of Matching Funds	EPA Mandated Element (a - i)
45		LRPC	May 14 - Sep-14	$2,080	$300	LRPC	e
method:	Select Sites for BMP Installations						
46		LRPC	May 14 - Sep-14	$1,100			e
method:	Enter agreements with landowners at selected sites						
47		LRPC	May 14 - Sep-14		$1,000	LRPC/Community	e

method:	Arrange for donations and volunteers. Purchase other materials and schedule work events						
48		Consultant/LRPC	May 14 - Sep-14	$6,660	$7,800	Select Board/Community	e
method:	Design and install BMPs at selected sites						
49		LRPC	Sep-14 - Sep 15	$550	$300	LRPC	e
method:	Visit sites and meet with landowners following storm events throughout the first season of operation						
			Subtotal	$10,390	$9,400		

Objective: Conduct Outreach and Education

Measures of Success: Delivery of Outreach and Education

Deliverable: Ongoing list of outreach and education excercises, documentation of behavior

Task #	Task Description	Responsible Party	Proposed Dates	Federal EPA 319 Grant Funds	Matching Funds	Source of Matching Funds	EPA Mandated Element (a - i)
45		LWWA	Jun-13 - Dec-15	$2,700	$10,000	Community	e
method:	Outreach will build on the first phase of the MPSB Watershed Management Plan. LWWA will assist Moultonborough CC in a public education program on phosphorus, current use, best management practices, with links to information. The Moultonborough CC is interested in a public program " What's your P? or "Measure your Phosphorus" - giving property owners the ability to do spot samples for P at their own expense.						
46		LWWA	Jun-13 - Dec-15	$1,800			e
method:	In addition to ongoing efforts by the project partners, project information will be broadcast through other statewide and regional organizations such as the NH Lakes Association, local County Conservation District, NH Association of Conservation Commissions, etc.						
47		LWWA	Jun-13 - Dec-15	$900			e
method:	Volunteers will be trained to monitor water quality through the DES VRAP and UNH Lakes Lay Monitoring Program, as necessary.						
48		LWWA	Jun-13 - Dec-15	$720			e
method:	Public meetings will be held throughout the process to provide forums for maximum community involvement.						
49		LWWA	Jun-13 - Dec-15		$450	LWWA	e
method:	The Winnipesaukee Gateway website will host the WMP and companion information, including map-based town regulations and shoreland zoning regulations. Project updates and meeting schedules will be posted, and public educational material will be available.						
			Subtotal	$6,120	$10,450		

Objective: Project Administration

Measures of Success: Project is conducted in compliance with all timelines and requirements

Deliverable: Programmatic and Financial Reporting

Task #	Task Description	Responsible Party	Proposed Dates	Federal EPA 319 Grant Funds	Matching Funds	Source of Matching Funds	EPA Mandated Element (a - i)
45		LRPC	Jun-13 - Dec-15		$1,250	Communities	e
method:	LRPC will conduct all programmatic and financial reporting as required by the program						
			Subtotal	$0	$1,250		

Total for all Tasks*	$63,865	$51,200

*Note that the total cost for all Tasks should equal the total cost for all Categories. Your total costs for all Categories are:

Totals carried over from the Cost by Category form:	$63,865	$51,200
Difference should equal zero. Difference:	$0	$0

6. Contractual: Sheet C - Subgrantee Detail

Budget Category						Requested Federal EPA 319 grant amount	Non-federal match amount	Total cost of category
1. Salary and Fringe: Include salaries and fringe benefits paid for work performed on the project. "Salary" should reflect the rate per								
Name	Title	Salary Hourly rate*	Approx. # of hours	Salary Charged to Project	Fringe			
Pat Tarpey	LWWA Exe	45	348	15,660		15,660		15,660
Implementation Consultant		150	158	23,700		23,700		23,700
Website Consultant: Green Info/Applied Geographic		150	20	3,000		3,000		3,000
					Totals	42,360		42,360
Includes direct labor and all indirect costs								
					Total cost for all Categories	**42,360**		**42,360**

Office of Selectmen

Town of Moultonborough
6 Holland Street - PO Box 139
Moultonborough, NH 03254
(603) 476-2347 * Fax (603) 476-5835

November 19, 2012

NH Department of Environmental Services
Watershed Assistance Section
PO Box 95
Concord, NH 03302-0095
Att: Mr. Jeff Marcoux

RE: 2012 Watershed Restoration Grant Application – Shannon Brook Watershed

Dear Mr. Marcoux,

I write on behalf of a unanimous SelectBoard in support of the Lakes Region Planning Commission's application for a Watershed Assistance Grant (S. 319 of the Clean Water Act) to develop and implement mitigation strategies for the Shannon Brook Watershed; a sub-area of Moultonborough Inlet on Lake Winnipesaukee. Further, at its regular meeting of November 15, 2012 the Board committed to a $5,000 cash match for implementation measures in addition to the $2,500 cash match pledged by the Conservation Commission toward planning measures.

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The proposed project will positively impact water quality in the Suissevale and Balmoral section of Moultonborough and enhance the quality of the Town's public facilities at States Landing. Implementation elements will focus on water quality enhancement through low cost Best Management Practices to minimize erosion, sedimentation and discharge of polluted runoff.

Additionally this focused approach will be the first step in what we hope will become a phased approach to tackling the entirety of the far larger Moultonborough Inlet watershed. This was most important to the Board as they recognize the important role that Lake Winnipesaukee plays in our local economy and the critical importance of ensuring that this vital natural resource remains a high quality water resource for generations to come.

We urge your positive consideration of this application. Please feel free to call upon me if I may provide any further information as to the Town's intent in this matter.

Sincerely yours,

Carter Terenzini
Town Administrator

CC: BoS; B. Woodruff; M. Samaha; LRPC

Moultonborough Conservation Commission
Post Office Box 139
6 Holland Street
Moultonborough, New Hampshire 03254

November 10, 2012

NH Department of Environmental Services
Attention: Jeff Marcoux
Watershed Assistance Section
PO Box 95
Concord, NH 03302-0095

Dear Mr. Marcoux,

I am writing on behalf of the Moultonborough Conservation Commission in support of the Lakes Region Planning Commission's submission to the NH DES Watershed Assistance Grants Program (appropriated through the U.S. Environmental Protection Agency under Section 319 of the Clean Water Act.) The LRPC grant focuses on helping to restore impaired waters of Lake Winnipesaukee that have been affected by stormwater runoff. The Conservation Commission met with LRPC members and Moultonborough Town Officials to discuss projects that would directly impact water quality and could be implemented in a timely manner. Working on stormwater management projects in the Suissevale/Balmoral section of Moultonborough was important to all members of this group and won our approval.

This project was presented to the Conservation Commission at its November 5, 2012, meeting and the Commission approved to support the project with a $2500 donation from its Fund. Stormwater management has been a focus for the Conservation Commission in the past and we assisted in drafting and winning approval for a stormwater management ordinance at a previous Town Meeting.

Please note that the Moultonborough Conservation Commission is in full support of this project and willing to provide some funding for it. We join with the LRPC and Town Officials in hoping that you will fund this grant.

Sincerely,

Marie T. Samaha

Marie T. Samaha
Chair, Moultonborough Conservation Commission

MOULTONBOROUGH RECREATION DEPT.
PO BOX 411
MOULTONBOROUGH, NH 03254
(603) 476-8868
FAX (603) 476-2607
www.moultonboroughnh.gov
dkuethe@moultonboroughnh.gov

November 8, 2012

Dear Sir or Madam:

As the Recreation Director for the Town of Moultonborough and as such, the manager of two swimming/beach facilities in Moultonborough, I am writing to voice my support for the 319 Water Quality Grant for the Town of Moultonborough for the study of Moultonborough Bay. The Town of Moultonborough owns 6.2 acres of land, 279 feet of beachfront and a boat launch at States Landing located in this area. This is a key recreation area for town residents and second homeowners.

When I first began working for the Town of Moultonborough in the late 1970's States Landing was a vibrant recreational aquatic facility. We had sections of dock and a raft. Swimming lessons ran all day long. Families spent the day at the beach. The swimming area was easily three times the size it is now.

Over time the swimming area has deteriorated to the point of almost being non-usable. We first had aquatic weed growth, including but not limited to, milfoil. Two milfoil treatments were successful. Then, again over time, the bottom of the swimming area became, for lack of a more official term – extremely "mucky". In addition to being unpleasant it now harbors leeches, which greatly compromises the use of States Landing Beach as a recreational facility.

We have greatly reduced the size of the swimming area. Programmatically, we have discontinued all swimming lessons there and removed lifeguards. We do maintain it as a very small, unguarded swimming area. How long we can continue to do so remains an important question. There is very limited use of the area in its current condition.

The future of this Recreation area remains a priority for the Recreation Dept. Identifying the cause of the deterioration and understanding what, if anything, can be done to return the swimming area to its former glory is key, as well as understanding if we did so would the conditions that caused the problems resurface and when? That will help to determine the future of this beautiful and important recreation area.

I support this grant as a step in the process to assist us in determining the future of this area.

Thank you,

Donna J. Kuethe,
Recreation Director